



Technical Data Sheet

Chemical name: Aluminium tri-sec-butoxide

CAS No.: 2269-22-9

Molecular formula: C₄H₁₃AlO

Molecular weight: 104.13

Sodium sulfonate Properties

ITEM	STANDARD
Purity % ≥	99.3
Al,%	10.5-12.0
Density(20°C) g/cm ³	0.92-0.97
Fe,ppm	100

Uses of Sodium sulfonate

Aluminum sec-butoxide is a multifunctional chemical reagent with a wide range of applications and multiple uses. The following are its main functions and application areas:

catalyst



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1. Organic chemical catalyst: Aluminum sec-butoxide performs well in esterification, transesterification and polymerization reactions, and can significantly increase reaction rate and yield, and reduce production costs. For example, aluminum sec-butoxide has become an indispensable and important raw material in the production of chemical industrial products such as spices, flavors and plastics.

2. Friedel-Crafts reaction: Aluminum sec-butoxide is an excellent catalyst for Friedel-Crafts reaction, which can promote the formation of active intermediates and further react with various nucleophiles to generate a wide range of useful products.

3. Metal-organic framework (MOF) synthesis: In the field of materials science, aluminum sec-butoxide is used as a precursor for MOF synthesis, which can produce high-quality materials with good thermal and chemical stability. These materials are used in catalysis, gas It has broad application prospects in storage and separation.

reducing agent

1. Aluminum sec-butoxide can also be used as a reducing agent in organic synthesis and can reduce various functional groups, including carbonyl groups, nitro groups and alkenes. For example, the reduction of carbonyl compounds with aluminum sec-butoxide forms alcohols, while the reduction of nitro and alkenes forms amines and alkanes, respectively.

Other applications

1. Inks and coatings: Aluminum sec-butoxide is used as a gelling agent in the ink and coating industry. It can form stable gels with a variety of solvents and is suitable for water-based and solvent-based systems. The gel formed is highly thixotropic, transparent, and resistant to temperature and pH changes, and is considered an environmentally friendly and low-toxic compound.

2. Pharmaceutical industry: In the pharmaceutical industry, aluminum sec-butoxide is often used as a Lewis acid catalyst, which can efficiently catalyze the synthesis of chiral compounds, and serves as a stabilizer in pharmaceutical preparations to prevent the degradation of active pharmaceutical ingredients and extend the shelf life of drugs. Additionally, it can be used as a coagulant in vaccine production

Sodium sulfonate packaging

200kg/drum